



## SEQUENCE LISTING

<110> Hall, Roderick L.  
Poll, Christopher T.  
Newton, Benjamin B.  
Taylor, William J.A.

<120> A Method for Accelerating the Rate of Mucociliary Clearance

<130> 98,736

<140> 09/218,913

<141> 1998-12-22

<160> 71

<170> Microsoft Word 97

<210> 1

<211> 179

<212> PRT

<213> Homo sapien

<400> 1

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15

Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30

Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45

Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
65 70 75 80

Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
85 90 95

Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
115 120 125

Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
130 135 140

Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
165 170 175

Ala Val Ser

<210> 2

<211> 197

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<212> PRT  
<213> Homo sapien

<220>  
<221> sig\_peptide  
<222> 1..18

<400> 2

Ala Gly Ser Phe Leu Ala Trp Leu Gly Ser Leu Leu Leu Ser Gly Val  
1 5 10 15  
Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser  
20 25 30  
Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn  
35 40 45  
Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly  
50 55 60  
Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala  
65 70 75 80  
Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala  
85 90 95  
Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp  
100 105 110  
His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala  
115 120 125  
Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val  
130 135 140  
Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn  
145 150 155 160  
Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg  
165 170 175  
Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu  
180 185 190  
Ala Gly Ala Val Ser  
195

<210> 3  
<211> 153  
<212> PRT  
<213> Homo sapien

<400> 3

Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala  
1 5 10 15  
Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu  
20 25 30  
Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys  
35 40 45

Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly  
 50 55 60  
 Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala  
 65 70 75 80  
 Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr  
 85 90 95  
 Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser  
 100 105 110  
 Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe  
 115 120 125  
 Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu  
 130 135 140  
 Ala Cys Met Leu Arg Cys Phe Arg Gln  
 145 150

<210> 4  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 4  
 Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala  
 1 5 10 15  
 Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu  
 20 25 30  
 Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys  
 35 40 45  
 Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55

<210> 5  
 <211> 51  
 <212> PRT  
 <213> Homo sapien

<400> 5  
 Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg  
 1 5 10 15  
 Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly  
 20 25 30  
 Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu  
 35 40 45  
 Lys Lys Cys  
 50

<210> 6  
 <211> 58  
 <212> PRT  
 <213> Homo sapien

<400> 6  
Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
1 5 10 15  
Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
20 25 30  
Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
35 40 45  
Glu Ala Cys Met Leu Arg Cys Phe Arg Gln  
50 55

<210> 7  
<211> 51  
<212> PRT  
<213> Homo sapien

<400> 7  
Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg  
1 5 10 15  
Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly  
20 25 30  
Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met  
35 40 45  
Leu Arg Cys  
50

<210> 8  
<211> 92  
<212> PRT  
<213> Homo sapien

<400> 8  
Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15  
Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30  
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45  
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60  
Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
65 70 75 80  
Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser  
85 90

<210> 9  
<211> 708  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature

<222> 679..708

<223> /note= "n at positions 622, 679, 707 is any nucleic acid"

<400> 9

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ggccgggtcg tttctgcct ggctgggac gctgctcctc tctggggctc tggcggccga      60
ccgagaacgc agcatccacg acttctgcct ggtgtcgaag gtggtgggca gatgcggggc      120
ctccatgcct aggtgggggt acaatgtcac tgacggatcc tgccagctgt ttgtgtatgg      180
gggctgtgac ggaacaagca ataattacct gaccaaggag gagtgcctca agaaatgtgc      240
cactgtcaca gagaatgcca cgggtgacct ggccaccagc aggaatgcag cggaattctc      300
tgtcccaagt gctcccagaa ggcaggattc tgaagaccac tccagcgata tgttcaacta      360
tgaagaatac tgaccgcca acgcagtcac tgggccttgc cgtgcatact tcccacgctg      420
gtactttgac gtggagagga actcctgcaa taacttcata tatggaggct gccggggcaa      480
taagaacagc taccgctctg aggaggcctg catgctccgc tgcttccgcc agcaggagaa      540
tcctcccctg ccccttggt caaagggtgt ggtctggcc ggggctgttt cgtgatggtg      600
ttgatccttt tcctggggag cntccatggt ctactgatt ccgggtggca aggaggaacc      660
aggagcgtgc cctgcgganc gtctggagct tcggagatga caagggt      708
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<210> 10

<211> 235

<212> PRT

<213> Homo sapien

<220>

<221> peptide

<222> 1..235

<223> /note= "Xaa at positions 198, 201, 226, and 233 are unknown amino acids"

<400> 10

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Ala Gly Ser Phe Leu Ala Trp Leu Gly Ser Leu Leu Leu Ser Gly Val
1           5           10           15
Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser
20          25          30
Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn
35          40          45
Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly
50          55          60
Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala
65          70          75          80
Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
85          90          95
Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp
100         105         110
His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala
```

115                      120                      125  
 Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val  
 130                      135                      140  
 Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn  
 145                      150                      155                      160  
 Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg  
 165                      170                      175  
 Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu  
 180                      185                      190  
 Ala Gly Ala Val Ser Xaa Trp Cys Xaa Ser Phe Ser Trp Gly Ala Ser  
 195                      200                      205  
 Met Val Leu Leu Ile Pro Gly Gly Lys Glu Glu Pro Gly Ala Cys Pro  
 210                      215                      220  
 Ala Xaa Arg Leu Glu Leu Arg Arg Xaa Gln Gly  
 225                      230                      235  
 <210> 11  
 <211> 179  
 <212> PRT  
 <213> Homo sapien  
 <220>  
 <221> peptide  
 <222> 1..170  
 <223> /note= "Xaa at positions 8, 17, 19, 21-26, 40, 42, 45-47, 52, 64,  
 103, 112, 114, 116-121, 135, 137, 140-142, 147, and 159 is any  
 amino acid residue"  
 <400> 11  
 Ala Asp Arg Glu Arg Ser Ile Xaa Asp Phe Cys Leu Val Ser Lys Val  
 1                      5                      10                      15  
 Xaa Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Trp Trp Tyr Asn Val Thr  
 20                      25                      30  
 Asp Gly Ser Cys Gln Leu Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Ser  
 35                      40                      45  
 Asn Asn Tyr Xaa Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Xaa  
 50                      55                      60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65                      70                      75                      80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85                      90                      95  
 Ser Asp Met Phe Asn Tyr Xaa Glu Tyr Cys Thr Ala Asn Ala Val Xaa  
 100                      105                      110  
 Gly Xaa Cys Xaa Xaa Xaa Xaa Xaa Trp Tyr Phe Asp Val Glu Arg  
 115                      120                      125  
 Asn Ser Cys Asn Asn Phe Xaa Tyr Xaa Gly Cys Xaa Xaa Xaa Lys Asn  
 130                      135                      140

Ser Tyr Xaa Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Xaa Gln  
 145 150 155 160

Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 165 170 175

Ala Val Ser

<210> 12  
 <211> 393  
 <212> DNA  
 <213> Homo sapien

<220>  
 <221> misc\_feature  
 <222> 390..391  
 <223> /note= "residue 361 is any nucleic acid"

<220>  
 <221> misc\_feature  
 <222> 390..391  
 <223> /note= "residue 367 is any nucleic acid"

<220>  
 <221> misc\_feature  
 <222> 384..385  
 <223> /note= "residue 384 is any nucleic acid"

<220>  
 <221> misc\_feature  
 <222> 367..368  
 <223> /note= "residue 390 is any nucleic acid"

<400> 12  
 ggccgggtcg tttctgcct ggctgggac gctgctctc tctgggggtcc tggccggccg 60  
 accgagaacg cagcatccac gacttctgcc tgggtgtcgaa ggtggtgggc agattccggg 120  
 cctccatgcc taggtggtgg tacaatgtca ctgacggatc ctgccagctg tttgtgtatg 180  
 ggggctgtga cggaacacgc aataattacc tgaccaagga ggagtgcctc aagaaatgtg 240  
 ccactgtcac agagaatgcc acgggtgacc tggccaccag caggaatgca gcggattcct 300  
 ctgtcccaag tgctcccaga aggcaggatt cttgaagacc acttcagcga tatgtttcaa 360  
 ntattgnaag aataattgca ccgncaacgn att 393

<210> 13  
 <211> 130  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> Region  
 <222> 1..18  
 <223> /label= signal peptide

<220>  
 <221> Peptide  
 <222> 111..130

<223> /note= "Xaa at positions 111, 120, 122, 128, and 130 represents a nonsense or stop codon"

<400> 13

Pro Gly Arg Phe Ser Pro Gly Trp Asp Arg Cys Ser Ser Leu Gly Ser  
1 5 10 15

Trp Pro Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser  
20 25 30

Lys Val Val Gly Arg Glu Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn  
35 40 45

Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly  
50 55 60

Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala  
65 70 75 80

Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala  
85 90 95

Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Xaa Arg  
100 105 110

Pro Leu Gln Arg Tyr Val Ser Xaa Ile Xaa Arg Ile Ile Ala Pro Xaa  
115 120 125

Thr Xaa  
130

<210> 14

<211> 511

<212> DNA

<213> Homo sapien

<220>

<221> misc feature

<222> 425..510

<223> /note= "n at positions 425, 482, and 510 is any nucleic acid"

<400> 14

gcaataatta cctgaccaag gaggagtgcc tcaagaaatg tgccactgtc acagagaatg 60  
ccacgggtga cctggccacc agcaggaatg cagcggattc ctctgtccca agtgctccca 120  
gaaggcagga ttctgaagac cactccagcg atatgttcaa ctatgaagaa tactgcaccg 180  
ccaacgcagt cactgggcct tgccgtgcat ccttcccacg ctggtacttt gacgtggaga 240  
ggaactcctg caataacttc atctatggag gctgccgggg caataagaac agctaccgct 300  
ctgaggaggc ctgcatgctc cgctgcttcc gccagcagga gaatcctccc ctgccccttg 360  
gctcaaagggt ggtggttctg gccggggctg ttctgtgatg gtgttgatcc ttttcctggg 420  
gagcntccat ggtcttactg attccgggtg gcaaggagga accaggagcg tgccctgcgg 480  
ancgtctgga gcttcggaga tgacaaggn t 511

<210> 15

<211> 169



<212> PRT  
<213> Homo sapien

<220>  
<221> peptide  
<222> 1..169  
<223> /note= "Xaa at positions 2, 23, 132, 160, and 167 represent a nonsense or stop codon"

<400> 15  
Gln Xaa Leu Pro Asp Gln Gly Gly Val Pro Gln Glu Met Cys His Cys  
1 5 10 15  
His Arg Glu Cys His Gly Xaa Pro Gly His Gln Gln Glu Cys Ser Gly  
20 25 30  
Phe Leu Cys Pro Lys Ser Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
35 40 45  
Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
50 55 60  
Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
65 70 75 80  
Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
85 90 95  
Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
100 105 110  
Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
115 120 125  
Ala Val Ser Xaa Trp Cys Xaa Ser Phe Ser Trp Gly Ala Ser Met Val  
130 135 140  
Leu Leu Ile Pro Gly Gly Lys Glu Glu Pro Gly Ala Cys Pro Ala Xaa  
145 150 155 160  
Arg Leu Glu Leu Arg Arg Xaa Gln Gly  
165

<210> 16  
<211> 431  
<212> DNA  
<213> Homo sapien

<220>  
<221> misc\_feature  
<222> 1..430  
<223> /note= "n at positions 3, 11, 12, 17, 51 and 429 represent any nucleic acid"

<400> 16  
gcngcgcggtt ntgcgcntgc tgggatcgct gctgcacctc tctgggggtcg nggcggccga 60  
ccgagaacgc agcatccacg acttctgcct ggtgtcgaag gtgggtggca gatgccgggc 120  
ctccatgcct aggtggtggt acaatgtcac tgacggatcc tgccagctgt ttgtgtatgg 180  
gggctgtgac ggaacagca ataattacct gaccaaggag gagtgcctca agaaatgtgc 240

```

cactgtcaca gagaatgcc a cgggtgacct ggcaccagc aggaatgcag cggattcttc 300
tgtcccaagt gctcccagaa ggcaggattc ttgaagacca cttcagcgat atgttcaact 360
atgaagaata ctggcaccgc caacgcattc actgggcctg cgtgcatcct tcccacgctg 420
gtactttgnc g 431

<210> 17
<211> 424
<212> DNA
<213> Homo sapien

<220>
<221> misc feature
<222> 1..424
<223> /note= "n at positions 6, 310 and 408 represent any nucleic acid"

<400> 17
tgggantcgc tgctcctctc tggggtcctg gcggccgacc gagaacgcag catccatgac 60
ttctgccttg tgtcgaaggt ggtgggcaga tgcggggcct ccatgcctag gtggtggtac 120
aatgtcactg acggatcctg ccagctgttt gtgtatgggg gctgtgacgg aaacagcaat 180
aattacctga ccaaggagga gtgcctcaag aaatgtgcc a ctgtcacaga gaatgccacg 240
ggtgacctgg ccaccagcag gaatgcagcg gattcctctg tcccaagtgc tccagaagg 300
caggattctn gaagaccact ccagcgatat gtccaactat gaagaatact gcaccgcaa 360
cgcagtcact gggccttgcg tggaatcctt tcccacgctg gnaatttnga cgttgagaag 420
gaac 424

<210> 18
<211> 57
<212> PRT
<213> Unknown

<220>
<221>
<222>
<223> /note= "Tissue factor pathway inhibitor precursor 1"

<400> 18
His Ser Phe Cys Ala Phe Lys Ala Asp Asp Gly Pro Cys Lys Ala Ile
1 5 10 15
Met Lys Arg Phe Phe Phe Asn Ile Phe Thr Arg Gln Cys Glu Glu Phe
20 25 30
Ile Tyr Gly Gly Cys Glu Gly Asn Gln Asn Arg Phe Glu Ser Leu Glu
35 40 45
Glu Cys Lys Lys Met Cys Thr Arg Asp
50 55

<210> 19
<211> 57
<212> PRT

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<213> Unknown

<220>

<223> /note= "Tissue factor pathway inhibitor precursor 1"

<400> 19

Pro Asp Phe Cys Phe Leu Glu Glu Asp Pro Gly Ile Cys Arg Gly Tyr  
1 5 10 15

Ile Thr Arg Tyr Phe Tyr Asn Asn Gln Thr Lys Gln Cys Glu Arg Phe  
20 25 30

Lys Tyr Gly Gly Cys Leu Gly Asn Met Asn Asn Phe Glu Thr Leu Glu  
35 40 45

Glu Cys Lys Asn Ile Cys Glu Asp Gly  
50 55

<210> 20

<211> 57

<212> PRT

<213> Unknown

<220>

<223> /note= "Tissue factor pathway inhibitor precursor"

<400> 20

Pro Ser Trp Cys Leu Thr Pro Ala Asp Arg Gly Leu Cys Arg Ala Asn  
1 5 10 15

Glu Asn Arg Phe Tyr Tyr Asn Ser Val Ile Gly Lys Cys Arg Pro Phe  
20 25 30

Lys Tyr Ser Gly Cys Gly Gly Asn Glu Asn Asn Phe Thr Ser Lys Gln  
35 40 45

Glu Cys Leu Arg Ala Cys Lys Lys Gly  
50 55

<210> 21

<211> 57

<212> PRT

<213> Unknown

<220>

<223> /note= "Tissue factor pathway inhibitor precursor 2"

<400> 21

Ala Glu Ile Cys Leu Leu Pro Leu Asp Tyr Gly Pro Cys Arg Ala Leu  
1 5 10 15

Leu Leu Arg Tyr Tyr Tyr Arg Tyr Arg Thr Gln Ser Cys Arg Gln Phe  
20 25 30

Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu  
35 40 45

Ala Cys Asp Asp Ala Cys Trp Arg Ile  
50 55

<210> 22

<211> 57

<212> PRT  
<213> Unknown

<220>  
<223> /note= "Tissue factor pathway inhibitor precursor 2"

<400> 22  
Pro Ser Phe Cys Tyr Ser Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn  
1 5 10 15  
Val Thr Arg Tyr Tyr Phe Asn Pro Arg Tyr Arg Thr Cys Asp Ala Phe  
20 25 30  
Thr Tyr Thr Gly Cys Gly Asn Asn Asp Asn Asn Phe Val Ser Arg Glu  
35 40 45  
Asp Ser Lys Arg Ala Cys Ala Lys Ala  
50 55

<210> 23  
<211> 57  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Amyloid Precursor Protein homologue"

<400> 23  
Lys Ala Val Cys Ser Gln Glu Ala Met Thr Gly Pro Cys Arg Ala Val  
1 5 10 15  
Met Pro Arg Thr Thr Phe Asp Leu Ser Lys Gly Lys Cys Val Arg Phe  
20 25 30  
Ile Thr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Glu Ser Glu Asp  
35 40 45  
Tyr Cys Met Ala Val Cys Lys Ala Met  
50 55

<210> 24  
<211> 58  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Aprotinin"

<400> 24  
Arg Pro Asp Phe Cys Leu Glu Pro Pro Tyr Thr Gly Pro Cys Lys Ala  
1 5 10 15  
Arg Ile Ile Arg Tyr Phe Tyr Asn Ala Lys Ala Gly Leu Cys Gln Thr  
20 25 30  
Phe Val Tyr Gly Gly Cys Arg Ala Lys Arg Asn Asn Phe Lys Ser Ala  
35 40 45  
Glu Asp Cys Met Arg Thr Cys Gly Gly Ala  
50 55

<210> 25

<211> 51  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Inter alpha-trypsin inhibitor precursor"

<400> 25  
Cys Gln Leu Gly Tyr Ser Ala Gly Pro Cys Met Gly Met Thr Ser Arg  
1 5 10 15  
Tyr Phe Tyr Asn Gly Thr Ser Met Ala Cys Glu Thr Phe Gln Tyr Gly  
20 25 30  
Gly Cys Met Gly Asn Gly Asn Asn Phe Val Thr Glu Lys Glu Cys Leu  
35 40 45  
Gln Thr Cys  
50

<210> 26  
<211> 57  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Inter alpha-trypsin inhibitor precursor"

<400> 26  
Val Ala Ala Cys Asn Leu Pro Ile Val Arg Gly Pro Cys Arg Ala Phe  
1 5 10 15  
Ile Gln Leu Trp Ala Phe Asp Ala Val Lys Gly Lys Cys Val Leu Phe  
20 25 30  
Pro Tyr Gly Gly Cys Gln Gly Asn Gly Asn Lys Phe Tyr Ser Glu Lys  
35 40 45  
Glu Cys Arg Glu Tyr Cys Gly Val Pro  
50 55

<210> 27  
<211> 57  
<212> PRT  
<213> Unknown

<220>  
<223> /note= "Amyloid precursor protein"

<400> 27  
Glu Val Cys Cys Ser Glu Gln Ala Glu Thr Gly Pro Cys Arg Ala Met  
1 5 10 15  
Ile Ser Arg Trp Tyr Phe Asp Val Thr Glu Gly Lys Cys Ala Pro Phe  
20 25 30  
Phe Tyr Gly Gly Cys Gly Gly Asn Arg Asn Asn Phe Asp Thr Glu Glu  
35 40 45  
Tyr Cys Met Ala Val Cys Gly Ser Ala  
50 55

<210> 28  
 <211> 51  
 <212> PRT  
 <213> Unknown

<220>  
 <223> /note= "Collagen alpha-3 (VI) precursor"

<400> 28  
 Cys Lys Leu Pro Lys Asp Glu Gly Thr Cys Arg Asp Phe Ile Leu Lys  
 1 5 10 15  
 Trp Tyr Tyr Asp Pro Asn Thr Lys Ser Cys Ala Arg Phe Trp Tyr Gly  
 20 25 30  
 Gly Cys Gly Gly Asn Glu Asn Lys Phe Gly Ser Gln Lys Glu Cys Glu  
 35 40 45  
 Lys Val Cys  
 50

<210> 29  
 <211> 57  
 <212> PRT  
 <213> Unknown

<220>  
 <223> /note= "HKI-B9"

<400> 29  
 Pro Asn Val Cys Ala Phe Pro Met Glu Lys Gly Pro Cys Gln Thr Tyr  
 1 5 10 15  
 Met Thr Arg Trp Phe Phe Asn Phe Glu Thr Gly Glu Cys Glu Leu Phe  
 20 25 30  
 Ala Tyr Gly Gly Cys Gly Gly Asn Ser Asn Asn Phe Leu Arg Lys Glu  
 35 40 45  
 Lys Cys Glu Lys Phe Cys Lys Phe Thr  
 50 55

<210> 30  
 <211> 46  
 <212> DNA  
 <213> S. cerevisiae

<400> 30  
 gccagcttg gataaaagat atgaagaata ctgcaccgcc aacgca 46

<210> 31  
 <211> 35  
 <212> DNA  
 <213> S. cerevisiae

<400> 31  
 ggggatcctc actgctggcg gaagcagcgg agcat 35

<210> 32  
 <211> 206  
 <212> DNA  
 <213> Homo sapien

<220>  
 <223> /note= "cDNA of human Bikunin protein fragment"  
  
 <400> 32  
 ccaagcttgg ataaaagata tgaagaatac tgcaccgcca acgcagtcac tgggccttgc 60  
 cgtgcatacct tcccacgctg gtactttgac gtggagagga actcctgcaa taacttcata 120  
 tatggaggct gccggggcaa taagaacagc taccgctctg aggaggcctg catgctccgc 180  
 tgcttcgcc agcagtgaag atcccc 206  
  
 <210> 33  
 <211> 28  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 33  
 cgaagcttca tctccgaagc tccagacg 28  
  
 <210> 34  
 <211> 31  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 34  
 aggatctaga caataattac ctgaccaagg a 31  
  
 <210> 35  
 <211> 36  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 35  
 ggtctagagg ccgggtcgtt tctcgcttg ctggga 36  
  
 <210> 36  
 <211> 19  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 36  
 cacctgatcg cgagaccc 19  
  
 <210> 37  
 <211> 19  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 37  
 gatttaggtg acactatag 19  
  
 <210> 38  
 <211> 20  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 38  
 taatacgact cactatagg 20  
  
 <210> 39

<211> 22  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 39  
 ttacctgacc aaggaggagt gc 22  
  
 <210> 40  
 <211> 23  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 40  
 aatccgctgc attcctgctg gtg 23  
  
 <210> 41  
 <211> 20  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 41  
 cagtcactgg gccttgccgt 20  
  
 <210> 42  
 <211> 105  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 42  
 gaaggggtaa gcttggataa aagatatgaa gaataactgca ccgccaacgc agtcactggg 60  
 ccttgccgtg catccttccc acgctgggtac tttgacgtgg agagg 105  
  
 <210> 43  
 <211> 129  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 43  
 cgcggatccc tactggcgga agcagcggag catgcaggcc tcctcagagc ggtagctgtt 60  
 cttattgccc cggcagcctc catagatgaa gttattgcag gagttcctct ccacgtcaaa 120  
 gtaccagcg 129  
  
 <210> 44  
 <211> 207  
 <212> DNA  
 <213> Homo sapien  
  
 <400> 44  
 gaaggggtaa gcttggataa aagatatgaa gaataactgca ccgccaacgc agtcactggg 60  
 ccttgccgtg catccttccc acgctgggtac tttgacgtgg agaggaactc ctgcaataac 120  
 ttcattctatg gaggtgccc gggcaataag aacagctacc gctctgagga ggccctgcatg 180  
 ctccgctgct tccgccagta gggatcc 207  
  
 <210> 45  
 <211> 248  
 <212> PRT



<213> Homo sapien

<220>

<221> Region

<222> 1..18

<223> /label= signal peptide

<400> 45

Met Leu Arg Ala Glu Ala Asp Gly Val Ser Arg Leu Leu Gly Ser Leu  
1 5 10 15

Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg Ser Ile His Asp  
20 25 30

Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro  
35 40 45

Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr  
50 55 60

Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys  
65 70 75 80

Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala  
85 90 95

Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg  
100 105 110

Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr  
115 120 125

Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg  
130 135 140

Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly  
145 150 155 160

Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met  
165 170 175

Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser  
180 185 190

Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe  
195 200 205

Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln  
210 215 220

Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln  
225 230 235 240

Leu Val Lys Asn Thr Tyr Val Leu  
245

<210> 46

<211> 213

<212> PRT

<213> Homo sapien

<400> 46

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
 1 5 10 15  
 Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
 20 25 30  
 Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 100 105 110  
 Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 115 120 125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 130 135 140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 145 150 155 160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 165 170 175  
 Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
 180 185 190  
 Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
 195 200 205  
 Trp Ser Phe Gly Asp  
 210

<210> 47  
 <211> 240  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> Region  
 <222> 1..18  
 <223> /label= signal peptide

<400> 47  
 Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu  
 1 5 10 15  
 Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg  
 20 25 30  
 Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg  
 35 40 45

Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln  
 50 55 60  
 Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr  
 65 70 75 80  
 Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr  
 85 90 95  
 Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser  
 100 105 110  
 Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn  
 115 120 125  
 Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
 130 135 140  
 Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
 145 150 155 160  
 Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
 165 170 175  
 Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu  
 180 185 190  
 Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val  
 195 200 205  
 Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala  
 210 215 220  
 Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp  
 225 230 235 240  
 <210> 48  
 <211> 225  
 <212> PRT  
 <213> Homo sapiens  
 <400> 48  
 Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
 1 5 10 15  
 Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
 20 25 30  
 Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
 35 40 45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
 50 55 60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 100 105 110

Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 115 120 125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 130 135 140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 145 150 155 160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
 165 170 175  
 Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
 180 185 190  
 Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
 195 200 205  
 Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val  
 210 215 220

Leu  
 225

<210> 49  
 <211> 252  
 <212> PRT  
 <213> Homo sapien

<220>  
 <221> Region  
 <222> 1..18  
 <223> /label= signal peptide

<400> 49  
 Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu  
 1 5 10 15  
 Leu Gly Ser Leu Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg  
 20 25 30  
 Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg  
 35 40 45  
 Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln  
 50 55 60  
 Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr  
 65 70 75 80  
 Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr  
 85 90 95  
 Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser  
 100 105 110  
 Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn  
 115 120 125  
 Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala  
 130 135 140

Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn  
 145 150 155 160  
 Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu  
 165 170 175  
 Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu  
 180 185 190  
 Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val  
 195 200 205  
 Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala  
 210 215 220  
 Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp  
 225 230 235 240  
 Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val Leu  
 245 250

<210> 50  
 <211> 146  
 <212> PRT  
 <213> Homo sapien

<220>  
 <223> /note= "Human Bikunin protein fragment"

<400> 50  
 Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg Ala Ser Met Pro Arg  
 1 5 10 15  
 Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly  
 20 25 30  
 Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu  
 35 40 45  
 Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr  
 50 55 60  
 Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln  
 65 70 75 80  
 Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys  
 85 90 95  
 Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp  
 100 105 110  
 Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly  
 115 120 125  
 Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu  
 130 135 140  
 Arg Cys  
 145

<210> 51

<211> 170  
<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 51  
Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15  
Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30  
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45  
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60  
Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
65 70 75 80  
Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
85 90 95  
Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
100 105 110  
Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
115 120 125  
Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
130 135 140  
Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
145 150 155 160  
Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys  
165 170

<210> 52  
<211> 170  
<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 52  
Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15  
Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30  
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45  
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60

Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
 65 70 75 80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
 85 90 95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
 100 105 110  
 Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
 115 120 125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
 130 135 140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
 145 150 155 160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys  
 165 170

<210> 53  
 <211> 27  
 <212> PRT  
 <213> Homo sapien

<220>  
 <223> /note= "Signal peptide of Human Bikunin protein"

<400> 53  
 Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu  
 1 5 10 15  
 Leu Gly Ser Leu Leu Ser Gly Val Leu Ala  
 20 25

<210> 54  
 <211> 23  
 <212> PRT  
 <213> Homo sapien

<220>  
 <223> Human Bikunin protein fragment

<400> 54  
 Met Leu Arg Ala Glu Ala Asp Gly Asn Ser Arg Leu Leu Gly Ser Leu  
 1 5 10 15  
 Leu Leu Ser Gly Val Leu Ala  
 20

<210> 55  
 <211> 102  
 <212> DNA  
 <213> Artificial sequence

<220>  
 <223> /note= "Oligomer for preparing expression construct"

<400> 55  
 gaaggggtaa gcttgataa aagagaagaa tactgtactg ctaatgctgt tactggtcca 60

tgtagagctt cttttccaag atggtacttt gatgttgaaa ga 102  
 <210> 56  
 <211> 129  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> Oligomer for preparing expression construct  
 <400> 56  
 actggatcct cattggcgaa aacatctcaa catacaggct tcttcagatc tgtaagaatt 60  
 tttattacct ctacaaccac cgtaaataaa attattacaa gaattttctt caacatcaaa 120  
 gtaccatct 129  
 <210> 57  
 <211> 108  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> note= "Oligomer for preparing expression construct"  
 <400> 57  
 gaaggggtaa gcttggataa aagaaattac gaagaatact gtactgctaa tgctgttact 60  
 ggtccatgta gagcttcttt tccaagatgg tactttgatg ttgaaaga 108  
 <210> 58  
 <211> 117  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> note= "Oligomer for preparing expression construct"  
 <400> 58  
 gaaggggtaa gcttggataa aagagatatg tttaattacg aagaatactg tactgctaatt 60  
 gctgttactg gtccatgtag agcttctttt ccaagatggt actttgatgt tgaaaga 117  
 <210> 59  
 <211> 20  
 <212> DNA  
 <213> Homo sapiens  
 <400> 59  
 cacctgatcg cgaagacccc 20  
 <210> 60  
 <211> 23  
 <212> DNA  
 <213> Homo sapiens  
 <400> 60  
 ctggcgggaag cagcggagca tgc 23  
 <210> 61  
 <211> 45  
 <212> DNA



<213> Artificial sequence

<220>

<223> /note= "Oligomer for preparing Bikunin expression construct"

<400> 61

cgcgctctcgg ctgacctggc cctgcagatg gcgcacgtgt gcggg

45

<210> 62

<211> 60

<212> DNA

<213> Artificial sequence

<220>

<223> /note= "Oligomer for preparing Bikunin construct"

<400> 62

ctgccccttg gctcaaagta ggaagatctt cccccgggg gggtggttct ggcggggctg

60

<210> 63

<211> 14

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 63

Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Pro Leu Gly

1

5

10

<210> 64

<211> 20

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 64

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val

1

5

10

15

Val Gly Arg Cys

20

<210> 65

<211> 20

<212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 65

Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys

1

5

10

15

Arg Ala Ser Phe

20

<210> 66

<211> 10

<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 66  
Pro Tyr Val Asp Gly Ser Gln Phe Tyr Gly  
1 5 10

<210> 67  
<211> 55  
<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 67  
Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu  
1 5 10 15  
Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu  
20 25 30  
Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu  
35 40 45  
Val Lys Asn Thr Tyr Val Leu  
50 55

<210> 68  
<211> 43  
<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 68  
Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu  
1 5 10 15  
Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu  
20 25 30  
Arg Ala Leu Arg Thr Val Trp Ser Phe Gly Asp  
35 40

<210> 69  
<211> 55  
<212> PRT  
<213> Homo sapien

<220>  
<223> /note= "Human Bikunin protein fragment"

<400> 69  
Val Val Val Leu Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu  
1 5 10 15  
Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu

20                      25                      30  
 Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu  
      35                      40                      45  
 Val Lys Asn Thr Tyr Val Leu  
      50                      55  
 <210> 70  
 <211> 213  
 <212> PRT  
 <213> Homo sapien  
 <220>  
 <223> /note= "Human Bikunin protein fragment"  
 <400> 70  
 Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
   1                      5                      10                      15  
 Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
                     20                      25                      30  
 Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
                     35                      40                      45  
 Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
                     50                      55                      60  
 Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
  65                      70                      75                      80  
 Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
                     85                      90                      95  
 Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
                     100                      105                      110  
 Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
                     115                      120                      125  
 Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
                     130                      135                      140  
 Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
  145                      150                      155                      160  
 Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
                     165                      170                      175  
 Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
                     180                      185                      190  
 Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
                     195                      200                      205  
 Trp Ser Phe Gly Asp  
      210  
 <210> 71  
 <211> 225  
 <212> PRT

<213> Homo sapien

<220>

<223> /note= "Human Bikunin protein fragment"

<400> 71

Ala Asp Arg Glu Arg Ser Ile His Asp Phe Cys Leu Val Ser Lys Val  
1 5 10 15  
Val Gly Arg Cys Arg Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr  
20 25 30  
Asp Gly Ser Cys Gln Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser  
35 40 45  
Asn Asn Tyr Leu Thr Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val  
50 55 60  
Thr Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp  
65 70 75 80  
Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser  
85 90 95  
Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr  
100 105 110  
Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg  
115 120 125  
Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn  
130 135 140  
Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln  
145 150 155 160  
Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly  
165 170 175  
Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr  
180 185 190  
Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val  
195 200 205  
Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val  
210 215 220  
Leu  
225